Once an order was taken, workers pulled stock using flashlights. Office staffers worked by spotlight, keeping inventory records by hand instead of entering them on computer as they do normally.

They labored under those conditions for two days, until power was restored. Then, for the next two weeks, Toddville operated 24 hours a day. As soon as shipments from vendors were received, they would be reloaded onto Duke trucks for delivery to the field. Field employees constantly advised Toddville about road conditions so that a delivery truck would be able to get through.

By the end of the clean-up effort, Duke employees had received 667 shipments of materials, weighing almost 2,600 tons. They had shipped out 495 deliveries of materials weighing just under 7,700 tons.

The orders for all that material were placed by Duke's purchasing agents whose job was no less daunting than that of Materials Management. Like Chavers, Ed Morton, customer purchasing manager, works in uptown Charlotte.

"Our challenge was to figure out how to communicate with our vendors," Morton said.

The storm disrupted many vendors and kept purchasing agents from reaching them until late on Friday, just the time when most were wrapping things up for the weekend.

This was one weekend Duke Power could not rest.

"We didn't really get our feet on the ground until about 5 p.m. on Friday, so we were spending the weekend chasing people down at home, at restaurants, at church, anywhere we could find them," Morton said.

As soon as Morton and the other purchasing agents received requests for materials, they would immediately begin contacting vendors. They started first with the Company's regular suppliers and when their resources had been exhausted, buyers began "scouring the country," Morton said.

Many times a buyer would locate an item and order the supplier's entire stock to ensure that Duke crews had enough material to complete repairs. An especially valuable item that was already in short supply was an automatic splice that enables a line technician to join broken power lines in a matter of seconds. Morton estimated that Duke bought 170,000 to 200,000 splices in the two weeks following Hugo.









"Any time you have a storm, your supply depots are going to get hit," Morton said. "But Hugo was different. The damage it created was so massive that we literally started running out of everything we normally stock, and that just never happens. We never totally exhausted our supplies, but we came close on some items."

It took Duke Power more than two months to replenish its inventories after Hugo. Should disaster strike again, however, the inventory and purchasing managers at Duke Power will benefit from the experience of Hugo. The Company's primary supply facilities now have backup power systems, and Duke's buyers have assembled a directory of phone numbers where sales representatives can be reached in an emergency.

All of this information is part of a formal response plan, prepared, ready and waiting for the next storm.

# Customer Contact Never Wavers In Days Following Storm

One call every seven seconds. Nine calls a minute. Twenty-four hours a day. For over two weeks.

That's how many calls on average Duke Power received from Charlotte-area customers who lost power in the wake of Hurricane Hugo. In fact, in the first few days following the storm, outage reports weren't all that necessary — so many were affected that it was rarer to find a customer who had service than one who didn't.

Nevertheless, Duke Power was prepared to handle the deluge.

"It was decided from the beginning that we wanted to have enough capability to allow callers to speak with a person rather than an answering machine," said Mike Carpenter of Duke's Communication Systems Division. "The decision was made even though we could have handled a much larger volume of calls in a shorter period with an automated voice processing system."

Normally, Duke has 24 emergency lines available 24 hours a day to receive outage reports. Another 77 lines are available during regular business hours. After Hugo, all of these lines were combined into a 24-hour-a-day phone bank with 101 incoming lines.

Besides the staff of regular operators, dozens of volunteers from throughout the Company were recruited to take calls. Ul-



Duke Power crews, contractors and workers from other utilities worked 16 hours a day after the storm to repair fallen lines.

timately, around 70 operators were on duty at any one time. Volunteers got high marks from most callers for their professionalism and caring attitude.

At first, operators could do little to give callers an idea of when power would be restored in their neighborhood. As field reports began to identify specific circuits under repair, however, operators were able to give customers better information.

Often, an operator was simply someone who would listen, which was a hard job in itself. The most difficult calls were from the elderly, shut-ins, or those with medical problems who depended on electric power and felt lost and cut off without it. Volunteer Randy Brooks, a design engineer in the Oconee Division, remembered one call from a woman who said she lived alone and feared the night: "I'm so afraid when the sun goes down."

Of course there were many happy stories. Carol Case of Charlotte explained how her mother helped turn a frustrating call into a happy ending. After taking a

call from a woman who complained she couldn't face another day without hot coffee, Case's initial frustration turned to concern as the woman explained that she was elderly, living in a six-room apartment house with other elderly residents. One had fallen down the stairs in her wheelchair in the dark and another had suffered a broken nose.

Case, feeling low, then called her mother and described the call. Her mother asked for the woman's name and address. A short time later. Case got a return call from her mother, who had brewed coffee and taken it to the elderly Duke Power customer.

"While Mother was explaining how she came to be there, the electricity was restored. In the excitement, the people in the apartment house did not understand Mother's explanation of how she came to be there. They hailed Duke Power as the greatest, most compassionate company ever. Who would have thought, they asked, that a company the size of Duke

Power would actually send a representative with hot coffee to check on them?"

# Storms of May a Dress Rehearsal for Hugo

Duke Power workers in the Company's Northern. Southern, and Western divisions viewed Hurricane Hugo's damage on September 22 with a strong sense of deja vu. After all, only four months earlier a series of tornadoes had ripped through these portions of Duke's service area, resulting in what, to that time, was the worst storm damage in Company history.

A total of 250,000 people in an area stretching from Greenville, S.C., to Greensboro, N.C., were without power for up to seven days because of the May storms. In Winston-Salem, N.C., which experienced some of the worst damage, the storm's aftermath looked to Winston-Salem Division Vice President Paul Briggs strikingly similar to the damage from Hugo.

"We had a massive wind storm in Winston-Salem and thousands of trees were on the ground. As the trees fell, our electrical distribution system was severely damaged and in some cases it was just blown away."

As with Hugo, one of the first problems the morning of May 6, 1989, the day of the tornadoes, was simply getting around in order to assess the damage. An on-call lineman in Winston-Salem had to hike to his office because fallen trees blocked his truck in his own driveway. Hundreds of oak trees were toppled by the high winds that buffeted the city, and one of Duke's first requests of city officials was for help in cutting away the fallen trees that clogged major thoroughfares.

A storm that disrupts 10,000 customers on the Duke system is considered very serious. The May storms were 25 times as bad. The operations managers knew immediately that repairing the storm damage would not be a short-term project. One thousand utility poles were down in the Winston-Salem area alone. The division's 350 line technicians were augmented by about 1,500 people from elsewhere in the Duke system, other utilities and contract crews. Thirty truckloads of supplies were shipped to Winston-Salem, including 18 loads of utility poles. With crews working 16-hour shifts, the last customer in Winston-Salem was returned to service after seven days.

Ironically in light of Hugo, which left some Duke customers without power for more than two weeks, the week required to restore service to Winston-Salem customers was, to that time, unprecedented, Briggs said.

"I had never imagined power being out after a storm as long as that," he said.

In retrospect. Duke Power learned lessons from the spring storms that proved helpful following Hurricane Hugo. An early problem following the tornadoes, for example, was finding places to feed the army of repair workers who trooped to Winston-Salem. Restaurants were unable to open without power. In evaluating the recovery from Hugo, the Company even explored the possibility of creating a standby field kitchen to feed repair crews during emergency situations.

Another lesson learned was the value of creating satellite command posts, putting managers directing repair and clean-up efforts in the field closer to repair crews. This shortened the communications chain and speeded the repair process









Hugo's might was seen in heavily damaged homes and destroyed automobiles, but the storm also fostered cooperation among neighbors

Duke expanded on this idea in Charlotte after Hugo, creating a field supply depot in a church parking lot near a section of town with particularly heavy storm damage. Field supervisors used a helicopter to direct work crews from the air.

Still, even with the knowledge gained from the May storms, Hurricane Hugo's strength was greater than anyone imagined it could be after traveling more than 200 miles inland from coastal South Carolina.

Future storms that affect the Duke Power service area may never approach the ferocity of a Hugo or of the thunderstorms and tornadoes that struck in May. But if they do, Duke Power will be even better prepared to deal with them.

# Letters From Customers Help Make the Work Go Easier

Hurricane Hugo gave everyone who experienced its wrath something to talk about for years to come. For days afterward, conversations centered on the storm, whether your power had been restored and how much damage Hugo had inflicted on you and your neighbors.

Those who experienced Hugo became a member of one large family of which no one who missed the storm could really be a part. Trying to tell someone who wasn't there how it felt to sit in the dark at 4 a.m., hearing the wind and the sound of splitting wood and wondering if a tree would soon be crashing onto the roof could never match the real-life event.

By far the most common experience was the lack of electricity. As the days dragged on, many people realized just how integral electricity is to their lives. Most customers showed a remarkable ability to cope as daily life took a giant step backwards, with candles and kerosene lanterns replacing electric lights. Charcoal grills substituted for electric ranges. Without power, televisions were silent, and families rediscovered radio and the art of conversation with each other and neighbors.

It wasn't all idyllic, of course. For many, particularly the elderly and the sick, being powerless represented a hardship that sometimes forced them to seek shelter with relatives or at hotels.

The Company's efforts to restore power did not go unnoticed. Many customers were effusive in their praise of Duke Power and its line crews and took the time



to write to let the Company know their feelings:

"Duke Power is still the best thing that ever happened to our area. No one else has ever been its equal. Magnificent job!"

"I'm writing to say I think all Duke Power employees are doing a great job and I appreciate all the sacrifices they've had to make in order to get us (Charlotte and surrounding areas) back 'on.' I also appreciate the cheerfulness of all the operators/customer service folks I've spoken with this week. It helps to brighten the day. Keep up the good work and THANKS!"

"Your crews should be commended for their efforts. Under very difficult circumstances, they worked steadily, efficiently, and successfully. Despite obvious long hours they maintained outstanding good humor, both toward the public and among themselves. Everyone I observed during that long period of time treated his fellow workers, regardless of their function, with dignity and consideration, when it would have been very understandable to have been irritable or short-tempered."

Children got into the action as well and provided some of the lighter moments in the days after Hugo:

"Thank you for fixing the power in Charlotte, even though I don't have electricity yet. But I can't blame you, I should blame Hugo."

One little girl found that no power meant less time for television:

"My mom and dad made me read a book. But I thank you for fixing the electricity! But now we have to go to school and we do not get to watch as much T.V. as we want to. But I thank you much for fixing the electricity!"

# Hugo's Rewards: A Spirit of Community, Readiness For The Future

After it was all over, the most surprising thing was how well repair efforts had gone.

After all, restoring a distribution system in just over two weeks is not something any utility can really plan for. Before Hugo and the series of tornadoes that







Duke Power workers were still mending Hugo's damage in October, but everyone's lights were restored well before Halloween.

struck the Piedmont in May, the severest storms that affected Duke Power were ice storms. In such storms, an outage that affects 10,000 customers is a major emergency.

So when nearly 700,000 customers were affected by Hugo, the job facing Duke Power was without precedent.

Hugo reinforced the idea that in a major storm, early damage assessment is critical. Although Duke engineers surveyed the damage by air shortly after the storm passed through, they didn't have full knowledge of the extent of the damage until the survey was completed several days after the storm.

Effective communications, both internally and with the public and media, is another key factor. Duke has an extensive radio network for internal communications, but the volume of the traffic on the Company's frequencies was so high it overloaded the system. The Company countered the problem by setting up a temporary cellular telephone network.

Maintaining communications with the public was a little easier. A hundred phone lines were available by the Monday following the storm to handle the large volume of calls received. The lines were staffed by volunteers from throughout the Company, and customers rarely had to wait to get through to an operator.

With damage occurring over a large area, satellite operations and supply centers proved to be valuable. Satellite operation centers kept those directing the repair efforts closer to the crews making the actual repairs, while the supply centers kept repair materials close at hand.

The most important element was the spirit of teamwork that developed among all who helped restore the Duke system. Many employees volunteered their personal time in addition to their regular duties. Many had damage to their own homes but gave a higher priority to helping restore electric service to Duke customers.

The widespread gratitude and appreciation expressed by customers were the result of those efforts. Never had Duke Power's corporate creed of Citizenship and Service been demonstrated so appropriately and so completely. In the future, other storms will certainly require more sacrifice and selfless service. But the response of Duke Power and its employees to Hurricane Hugo will stand as a model for those who serve in the years ahead. •

Duke Power Company P.O. Box 33189 Charlotte, NC 28242

DAVID L. HAUSER Controller (704)373-5963



November 22, 1989

Russell Faudree, Jr.
Chief Accountant
Office of Accounting and Finance
Federal Energy Regulatory Commission
825 N. Capital Street, N.E.
Washington, DC 20426

Subject: Request to Use Account 182.1

Dear Mr. Faudree, Jr.:

During 1989, the Duke Power Company system has been hit with two major storms, a tornado in May and a hurricane in September, which caused severe and extensive damage. The estimated extraordinary costs incurred by the Company in connection with these storms, excluding the cost of property units replaced, is approximately \$23.5 million. The expenditures cover costs of the Company crews, contractors' crews, and other utilities' crews, together with the necessary materials, supplies, and equipment. This amount is not final because all bills are not received and crews are still working to strengthen the system to it's status before the hurricane.

The Company hereby requests, in accordance with the FERC Uniform System of Accounts, permission to charge to Account 182.1, Extraordinary Property Losses, the costs incurred in connection with the storm damage experienced in these two storms, excluding the cost of property units actually replaced at such time. The cost associated with replacing property units will be capitalized as electric plant additions. The Company proposes to incorporate these costs in its next rate case filings by amortizing the deferred amount over a five year period beginning January 1, 1990 to Account 407, Amortization of Property Losses. Any related income tax effects will be recorded in Account 283, Accumulated Deferred Income Taxes - Other.

Sincerely,

David L. Hauser

12. Hause

Controller

DLH/acr

STORM DAMAGE

FEDERAL ENERGY REGULATORY COMMISSION

WASHINGTON, D. C. 20426

JLB IMS WRS

DZ/J

In Reply Refer To: OCA-DAS

DEC, 20, 1989

Mr. David L. Hauser Controller Duke Power Company P. O. Box 33189 Charlotte, NC 28242

Dear Mr. Hauser:

We have reviewed your letter dated November 22, 1989, requesting approval to use Account 182.1, Extraordinary Property Losses, to record the costs of repairing the Company's system resulting from damages caused by two major storms which occurred in 1989.

The estimated costs incurred in connection with these storms, excluding the cost of property units replaced, is approximately \$23.5 million. The costs associated with replacing property units will be capitalized as electric plant additions.

You are authorized to charge the costs to Account 182.1 and to amortize the costs to Account 407, Amortization of Property Losses, Unrecovered Plant and Regulatory Study Costs, over a five-year period beginning January 1, 1990, in anticipation of concurrent rate treatment. The related income tax effects shall be deferred in Account 283, Accumulated Deferred Income Taxes - Other.

The entries made to defer and amortize these costs and related income tax effects are subject to adjustment if such amounts are treated differently for rate purposes or if other additional information warrants. If recovery of any portion of the deferred costs is disallowed in any rate proceeding, such amounts shall be charged to Account 426.5, Other Deductions, in the year of disallowance.

Sincerely yours,

Russell E. Faudree, Jr.

Chief Accountant

# DUKE POWER COMPANY

P. O. Box 33189

CHARLOTTE, N. G. 28242

WILLIAM R. STIMART VICE PRESIDENT REGULATORY AFFAIRS

TELEPHONE (704) 373-4037

November 22, 1989

Honorable William Redman, Jr. North Carolina Utilities Commission P.O. Box 29510 Raleigh, N.C. 27626

Subject: Request to Use Account 182.1

Dear Chairman Redman:

During 1989, the Duke Power Company system has been hit with two major storms, a tornado in May and a hurricane in September, which caused severe and extensive damage. The estimated extraordinary costs incurred by the Company in connection with these storms, excluding the cost of property units replaced, is approximately \$23.5 million. The expenditures cover costs of the Company crews, contractors' crews, and other utilities' crews, together with the necessary materials, supplies, and equipment. This amount is not final because all bills are not received and crews are still working to strengthen the system to it's status before the hurricane.

The Company hereby requests, in accordance with the Uniform System of Accounts, permission to charge to Account 182.1, Extraordinary Property Losses, the costs incurred in connection with the storm damage experienced in these two storms, excluding the cost of property units actually replaced at such time. The cost associated with replacing property units will be capitalized as electric plant additions. The Company proposes to amortize the deferred amount over a five year period beginning January 1, 1990 to Account 407, Amortization of Property Losses. Any related income tax effects will be recorded in Account 283, Accumulated Deferred Income Taxes - Other.

Sincerely,

William R. Stimart

WRS/acr

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## STATE OF NORTH CAROLINA UTILITIES COMMISSION RALEIGH

DOCKET NO. E-7, SUB 460

# BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of

Duke Power Company - Request for Approval ) ORDER ESTABLISHING
of Accounting for Storm Damage Costs ) ACCOUNTING PROCEDURE

BY THE COMMISSION: By letter dated November 22, 1989, Duke Power Company (Duke) requested Commission approval of its proposed accounting treatment of costs associated with the repair of damage resulting from a May 1989 tornado and Hurricane Hugo.

With respect to the May 1989 tornado, Duke sustained a total of \$9,757,349 in damages. These damages include \$6,255,523 in capital replacement costs.

In September 1989, Duke again experienced significant storm damage, this time from Hurricane Hugo. Total damage from Hugo is estimated to be \$62,000,000 including \$42,000,000 in capital replacement costs. The hurricane-related damage covers the costs of Duke's company crews, contractors' crews, and other utilities' crews, along with the necessary materials, supplies, and equipment. The following chart presents a summary of these estimated costs:

# Estimated Hugo Storm Costs

Description	<b>Estimated Costs</b>
Duke Power labor and related benefits	\$16,933,914
Inventory	6,287,626
Invoices	2,488,971
Vehicles chargebacks	836,609
Employee expenses - hotel, restaurants	2,136,006
Contract work	31,039,392
Nonlabor allocations	711,496
Other	2,000,000
Total	\$62,434,014

Duke is requesting that costs other than capital replacement costs, incurred with respect to the repair of damage resulting from the two aforementioned storms be recorded in Account 182.1 - Extraordinary Property Losses, and that such costs be amortized to Account 407 - Amortization of Property Losses over a five-year period beginning January 1, 1990. Duke has proposed that the related income tax effect be recorded in Account 283 - Accumulated Deferred Income Taxes - Other. Duke estimates the costs to be accounted for in this manner to be in the range of \$23,500,000.

This matter was presented to the Commission by the Public Staff during the Commission Conference held on Monday, January 8, 1990. The Public Staff recommended that the Commission approve Duke's instant request without prejudice to the right of any party to take issue with the amount or the accounting treatment accorded the costs under review in any future regulatory

proceeding; provided, however, that one-fifth of the amortization be reflected in 1989, the year the costs were incurred, rather than beginning said amortization in 1990, as proposed by Duke.

After having very carefully considered this matter, the Commission finds and concludes that Duke's proposed method of accounting for the costs in question should be approved, except for that provision of Duke's proposal which would defer commencement of amortization of these costs until January 1990. The Commission finds and concludes that amortization of such costs should begin in the month the costs were or began to be incurred. Therefore, eight-sixtieths of the costs in question associated with the repair of damage resulting from the May 1989 tornado and four-sixtieths of the costs in question associated with the repair of damage resulting from Hurricane Hugo should be reflected in calendar year 1989. Approval of this accounting procedure is without prejudice to the right of any party to take issue with the amount or the accounting treatment accorded these costs in any future regulatory proceeding.

Additional requests for special accounting for extraordinary expenses associated with Hurricane Hugo which may be filed by other regulated public utilities will be decided on a case-by-case basis and will be evaluated on the specific facts of those cases. The special accounting treatment approved in this case for Duke shall not be interpreted to set a precedent for the treatment which the Commission may order in other cases.

IT IS, THEREFORE, ORDERED that Duke Power Company shall account for the costs incurred in the repair of storm damage resulting from the May 1989 tornado and Hurricane Hugo in the manner as provided hereinabove. Approval of this accounting procedure is without prejudice to the right of any party to take issue with the amount or the accounting treatment accorded these costs in any future regulatory proceeding.

ISSUED BY ORDER OF THE COMMISSION.

This the // the day of 9

1990.

NORTH CAROLINA UTILITIES COMMISSION

(SEAL)

# DUKE POWER COMPANY

P. O. Box 33189

CHARLOTTE, N. C. 28242

WILLIAM R. STIMART VICE PRESIDENT REGULATORY AFFAIRS

TELEPHONE (704) 373-4037

November 22, 1989

Mr. Charles Ballentine
Executive Director
Public Service Commission of South Carolina
P.O. Box 11649
Columbia, S.C. 29211

Subject: Request to Use Account 182.1

Dear Mr. Ballentine:

During 1989, the Duke Power Company system has been hit with two major storms, a tornado in May and a hurricane in September, which caused severe and extensive damage. The estimated extraordinary costs incurred by the Company in connection with these storms, excluding the cost of property units replaced, is approximately \$23.5 million. The expenditures cover costs of the Company crews, contractors' crews, and other utilities' crews, together with the necessary materials, supplies, and equipment. This amount is not final because all bills are not received and crews are still working to strengthen the system to it's status before the hurricane.

The Company hereby requests, in accordance with the FERC Uniform System of Accounts, permission to charge to Account 182.1, Extraordinary Property Losses, the costs incurred in connection with the storm damage experienced in these two storms, excluding the cost of property units actually replaced at such time. The cost associated with replacing property units will be capitalized as electric plant additions. The Company proposes to amortize the deferred amount over a five year period beginning January 1, 1990 to Account 407, Amortization of Property Losses. Any related income tax effects will be recorded in Account 283, Accumulated Deferred Income Taxes - Other.

Sincerely,

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William R. Stimart

WRS/acr



# STATE OF SOUTH CAROLINA THE PUBLIC SERVICE COMMISSION

P. O. DRAWER 11649 COLUMBIA, SOUTH CAROLINA 29211

December 7, 1989

Mr. William R. Stimart
Vice President Regulatory Affairs
Duke Power Company
Post Office Box 33189
Charlotte, North Carolina 28242

Dear Mr. Stimart:

Your request of November 22, 1989 for authorization to treat expenses due to two major storms, a tornado in May and a hurricane in September, as "Extraordinary Property Losses" with amortization over future years, was presented to the Commission in regular session on November 28, 1989.

After consideration by the Commission, your Company was authorized to charge to Account 182.1, Extraordinary Property Losses, and further to amortize these expenses to Account 407, Amortiziation of Property Losses, over a five-year period beginning January 1, 1990. Any related income tax effect should be recorded in Account No. 283, Accumulated Deferred Income Taxes - Other, and should be amortized over a five-year period beginning January 1, 1990.

The Commission's approval granted herein does not constitute any final judgment as to the reasonableness of the expenses. Such final judgement would come in the context of a rate proceeding or formal staff audit. Approval granted herein has no effect on a determination of the appropriate treatment of the expenses in rate proceedings filed with this Commission.

Sincerely,

Gary E. Walsh

Assistant Director Utilities Division

Gary E. Walsh

EXHIBIT C (Rate of Return Decisions)

#### BEFORE

## THE PUBLIC SERVICE COMMISSION OF

#### SOUTH CAROLINA

DOCKET NO. 91-216-E - ORDER NO. 91-1022 NOVEMBER 18, 1991

IN RE: Application of Duke Power Company ) ORDER APPROVING for an Increase in its Electric Rates ) RATE INCREASE and Charges.

On May 17, 1991, Duke Power Company (Duke or the Company) filed an application with the Public Service Commission of South Carolina (the Commission) to adjust and increase its retail electric rates and charges, effective for service in accordance with the terms and conditions of S.C. Code Ann. \$58-27-870 (Supp. 1990). According to the Company's application, the proposed rates were designed to increase annual gross revenues from South Carolina retail operations by \$72,542,000 or 7.29% based on the test year, i.e., the twelve (12) months ended December 31, 1990.

The proposed revenue increase was distributed among classes of customers by increasing residential revenues by 9.08%, general service revenues by 7.96%, industrial revenues by 5.96%, and outdoor lighting revenues by 6.18%. The Company stated in its application that "different percentage increases for customer classes are proposed because of the existing disparity in rates of

<sup>1.</sup> Pursuant to the provisions of \$58-27-860, the Company gave the Commission the statutory 30-day notice of its intention to file an increase in its rates by letter dated April 16, 1991.

return between customer classes." Application, p. 3.

The principal reason for the requested increase set forth in the application is the commercial operation of the Bad Creek Hydroelectric Station, a 1,065 MW facility located in the mountains of western South Carolina. Units 1 and 2 began commercial operation on May 15, 1991. Units 3 and 4 began commercial operation on September 3 and September 13, 1991, respectively.

By letter dated May 30, 1991, the Executive Director of the Commission required the Company to file with the Commission on or before June 24, 1991, and serve on all parties of record, the testimony and exhibits of the witnesses which the Company intended to offer at the hearing in this matter.

By letter of June 11, 1991, the Executive Director of the Commission scheduled a public hearing on September 23, 1991, and required the Company to provide notice of the public hearing by newspaper notices and bill inserts. The Company furnished proof of publication of the required notice on July 19, 1991. Petitions to Intervene were received from Steven W. Hamm, the Consumer Advocate for the State of South Carolina (the Consumer Advocate); the South Carolina Energy Users Committee (SCEUC); the Clifton Power Corporation; and Jasper P. Rogers. These petitions to intervene were allowed by the Commission.

On June 24, 1991, the Company filed with the Commission its prepared direct testimony and exhibits for the following witnesses: William S. Lee, Chairman of the Board and President, Duke Power Company; Roger G. Ibbotson, President of Ibbotson Associates, Inc.;

Richard J. Osborne, Vice President, Finance, Duke Power Company;
Donald H. Denton, Jr., Senior Vice President, Planning and
Operating, Duke Power Company; W. R. Stimart, Vice President, Rates
and Regulatory Affairs, Duke Power Company; Ronald E. White, Senior
Vice President, Foster Associates, Inc.; and Thomas S. LaGuardia,
President, TLG Engineering, Inc. On September 3, 1991, Duke filed
Supplemental Testimony and Supplemental Exhibit 1 of W. R. Stimart.
On September 5, 1991, the Company filed amended Exhibit B of the
application, Schedule PL, and amended Denton Exhibit 1. Duke filed
Supplemental Exhibit 2 of W. R. Stimart on September 20, 1991.
During the hearing, Duke filed Supplemental Exhibit 3 of
W. R. Stimart.

By letter of August 8, 1991, the Executive Director of the

Commission required the Commission Staff and all other parties of
record to file their testimony on or before September 9, 1991. The

following testimony was filed: for the Consumer Advocate: Faul

Chernick, Resource Insight, Inc.; Peter J. Lanzalotta, Whitfield

Russell Associates; Philip E. Miller, Riverbend Consulting, Inc.;

John B. Legler, Professor of Banking and Finance in the College of

Business Administration, University of Georgia; for the Commission

Staff: I. Curtis Price, III, Utilities Accountant, A. R. Watts,

Chief, Electric Department, and James E. Spearman, Assistant Public

Utilities Economist; for the South Carolina Energy Users Committee:

Nicholas Phillips, Jr. <sup>2</sup> The Commission also received a written statement from Jasper P. Rogers on or about September 21, 1991.

On September 16, 1991, Duke filed updated and revised testimony of Roger G. Ibbotson, and the Consumer Advocate filed a revised exhibit of Peter J. Lanzalotta.

On September 11, 1991, in Order No. 91-775, the Commission scheduled a prehearing conference for September 18, 1991, at 10:00 a.m. The prehearing conference was held as scheduled.

The public hearing before the Commission commenced as scheduled on September 23, 1991. William F. Austin, Esquire, Steve C. Griffith, Jr., Esquire, Ellen T. Ruff, Esquire, and Karol P. Mack, Esquire, represented the Company; Steven W. Hamm, Esquire, Raymon E. Lark, Jr., Esquire, Nancy J. Vaughn, Esquire, Carl F. McIntosh, Esquire, and Elliott F. Elam, Esquire, represented the Consumer Advocate; Arthur G. Fusco, Esquire, represented SCEUC; William E. Booth, III, Esquire, represented Clifton Power Corporation; Jasper P. Rogers appeared on his own behalf; and Marsha A. Ward, Esquire, represented the Commission Staff. Two public witnesses, H.D. Stone and J. H. Stone, gave their testimony at the commencement of the hearing. The public hearing was completed on September 26, 1991.

- On September 25, 1991, the Company filed the rebuttal testimony of Donald H. Denton, Jr. and William F. Reinke.

<sup>2.</sup> Pursuant to their respective requests, the Consumer Advocate and SCEUC were granted an extension of time until September 13 to file their testimony.

Subsequent to the hearing, the Consumer Advocate filed the surrebuttal testimony of Philip E. Miller and Paul Chernick on October 2, 1991.

A night hearing was held in Greenville, South Carolina on October 7, 1991. The Commission heard testimony from the following witnesses: Tom Blank, Jim Schumer, Earl Mills, Joe Jelks, Jim McKittrick, Ron Vankirk, John E. Newman, Robert Keenan, and Kris Risley.

Based on the verified application, the testimony and exhibits received into evidence at the hearing and the entire record of these proceedings, the Commission now makes the following findings of fact:

## FINDINGS OF FACT

- distribution, and sale of electric energy in the central portion of North Carolina and the western portion of South Carolina, comprising the area in both states known as the Piedmont Carolinas.

  Application, p. 2.
  - 2. Duke is an electric utility operating in the State of South Carolina where it is engaged in the generation, transmission, distribution, and sale of electricity to the public for compensation. The Company's retail operations in South Carolina are subject to the jurisdiction of this Commission pursuant to S.C. Code Ann. \$58-27-10 et. seq. (1976), as amended. The Company's wholesale operations in South Carolina are subject to the jurisdiction of the Federal Energy Regulatory Commission

(hereinafter "FERC"). Application, p. 2.

- 3. The test period for purposes of this proceeding is the 12-month period ended December 31, 1990, adjusted for certain known and measurable changes. Application, p. 3; Hearing Exhibit No. 36; Hearing Exhibit No. 37.
- 4. Duke, by its application, sought an increase in its basic rates and charges to its South Carolina retail customers of \$72,542,000. Subsequent to the filing of the application, the Company lowered its request to \$68,384,000. Hearing Exhibit No. 22, Stimart Supplemental Exhibit 3.
- 5. The summer coincident peak (summer CP) demand allocation methodology is the most appropriate method for making jurisdictional allocations of production cost and for making fully distributed cost allocations among customer classes in this proceeding. Consequently, each Finding of Fact appearing in this Order which deals with the overall level of rate base, revenues, and expenses for South Carolina retail service has been determined based upon the summer CP allocation method.

Duke provides retail service in two states as well as wholesale service to certain municipalities and electric membership cooperatives; therefore, it is necessary to allocate the cost of service among jurisdictions and among customer classes within each jurisdiction. The Company based its application on the use of the summer coincident peak allocation methodology, which was found appropriate by the Commission in its Order in the Company's last rate case, Docket No. 86-188-E. As Company witness Denton

testified, Duke has utilized and the Commission has approved the summer CP method in its cost studies since 1970. Denton also testified that by all forecasts, Duke will continue to be a summer peaking company. (TR. Vol. 2, p. 91).

Commission Staff witness Watts and SCEUC witness Phillips supported the continued use of the summer CP method. SCEUC witness Phillips presented testimony and exhibits demonstrating the dominance of the summer peak demand on the Duke system. Phillips further testified that other methods of cost allocation would not adequately account for the dominant summer coincident peak and would therefore fail to reflect the actual load characteristics of the Duke system. (TR. Vol. 4, p. 112). No witness challenged the appropriateness of the summer CP allocation methodology for Duke.

While the Commission adopts the Summer CP methodology, it must also consider the proposal by Staff witness Watts to eliminate the Minimum System concept in the Company's cost of service study. The Minimum System approach is a method used to separate, as customer related, a certain portion of distribution facilities. Staff recommended that the concept be eliminated so that all portions of affected accounts are allocated by their more appropriate allocation factor. No party put forth any evidence to convince the Commission that the Staff's recommendation should not be adopted. Therefore, the Commission finds that the Minimum System concept should be eliminated from Duke's cost of service study.

6. The appropriate operating revenues for Duke for the test year under present rates and after accounting and pro forma adjustments are \$988,044,000 for service to its South Carolina retail jurisdiction. Support for the Commission's finding concerning the appropriate operating revenues can be found in the testimony and exhibits of witnesses Stimart, Watts, Price and Miller.

The differences between the recommendations of the witnesses are related to adjustments to customer growth and the annualization of revenues to the level of rates reflected in the currently approved South Carolina retail tariffs. Commission Staff witness Watts agreed with the Company's adjustment to annualize revenues to the level of rates reflected in the currently approved South Carolina retail tariffs. However, witness Watts also recommended that the Company's adjustment be modified by \$110,510 to reflect the additional revenue associated with the requested increase in the Company's reconnect fee\_from \$5.00 to \$15.00. (TR. Vol. 5, p. 229).

The Commission Staff and the Consumer Advocate agreed that as to customer growth, the standard Commission method of accounting for customer growth should be utilized. (TR. Vol. 5, pp. 33-34, 79). The Company proposed a different methodology to calculate customer growth. The Company has provided no justification that persuades the Commission to abandon its traditional method of determining customer growth for ratemaking purposes. Therefore, we find that the traditional method be used and that, in this

DOCKET NO. 91-216-E - ORDER NO. 91-1022 NOVEMBER 18, 1991 PAGE 9

proceeding, the customer growth factor is .87%. Hearing Exhibit No. 37, Accounting Exhibit A-2.

7. The appropriate test year operating expenses for Duke Power's retail electric operations after accounting and pro forma adjustments are \$818,569,000. The Company, the Consumer Advocate, and the Staff proposed various adjustments to several of the Company's operating expense accounts. Additionally, there were many areas where there was no disagreement among the parties as to the appropriate accounting and pro forma adjustments to be made. Therefore, this Order will discuss only those accounting and pro forma adjustments where there was a disagreement among the proposals of the parties.

## A. DEPRECIATION RATES AND DECOMMISSIONING EXPENSES

The testimony of witnesses Stimart, White, LaGuardia, Watts and Lanzalotta is enlightening in regard to the appropriate level of depreciation and decommissioning expenses.

Duke adjusted depreciation expense to reflect the proposed depreciation rates and nuclear decommissioning expenses. The Company based its proposed depreciation rates on a study prepared by Foster Associates, Inc. which is discussed in the testimony of Company Witness Ronald White. (TR. Vol. 4, pp. 13-29; Hearing Exhibit No. 21). The following table sets forth the Company's current and proposed depreciation rates:

DOCKET NO. 91-216-E - ORDER NO. 91-1022 NOVEMBER 18, 1991 PAGE 10

#### TABLE A

Function	Present	Proposed	Difference
Production	*		
Steam	3.57%	2.57%	(1.00%)
Nuclear			
Decommissioning	0.67%	1.61%	0.94%
Investment	3.33%	3.09%	(0.24%)
Total Nuclear	4.00%	4.70%	0.70%
Hydraulic	1.50%	1.98%	0.48%
Other	0.00%	0.74%	0.74%
Transmission	3.00%	2.57%	(0.43%)
Distribution -	3.40%	3.59%	0.19%
General	5.48%	3.59%	(1.89%)
TOTAL UTILITY	3.68%	3.69%	0.01%

This study also included the annual funding requirements of the nuclear decommissioning amounts based on the site specific decommissioning cost studies included in Mr. LaGuardia's testimony. Commission Staff Witness Watts testified that both the depreciation and decommissioning studies were reviewed by the Commission Staff and were just and reasonable and in line with the studies previously approved by this Commission. (TR. Vol. 5, pp. 249-250).

The Company is proposing site-specific nuclear decommissioning cost studies for each of its seven nuclear units which support the annual revenue needed to fund the Prompt Removal/Dismantling method of decommissioning. This includes removal of non-radiological structures from each site. The studies were performed by TLG Engineering, Inc. and presented by its President, Thomas S. LaGuardia.

The Consumer Advocate took exception to three areas of the study and concomitant funding proposal made by the Company. The first area concerns revenue requirements due to removal of non-

radiological portions of the Company's nuclear plant. The Consumer Advocate concludes that since the Nuclear Regulatory Commission (NRC) does not require such decommissioning nor the associated costs of removal and disposal included as part of the expense, the annual revenue requirements generated from these cost estimates should be removed from the Company's proposal as rate case expenses.

Each Decommissioning Study filed by Mr. LaGuardia contains a section addressing removal of portions of non-radioactive facilities which states in part:

Nuclear power plants are designed to contain the radioactivity inherent in the normal operation of the facility. Accordingly, radioactive and potentially radioactive systems are located in shielded labyrinths, tunnels and pipe chases. This inaccessibility, while during operation serves to decommissioning activities. Consequently, disposition consequently, disposition consequents requires that in many situations that additional access (and working space) be developed. This access is achieved by dismantling structures and components along the intended path of egress and in the immediate working area; material which in most cases is non-radioactive and therefore not normally perceived as necessary constituent in facility decontamination. Failure to establish adequate working room will increase the residence times for decontamination and dismantling resulting in increases in the incurred activities occupational exposure.

Hearing Exhibit No. 6, Document D03-25-004, p. 73 of 109; Document D03-25-005, p. 73 of 109; Document D03-25-006, p. 88 of 123.

The Company also indicated, in testimony and in its Decommissioning Cost Studies, that removal of the non-radioactive structures from the sites would end Duke's liability, as far as maintenance and site surveillance with its incumbent costs, and permit the return

of these areas for other uses. TR. Vol. 3, pp. 137-138.

Simply because the NRC does not require decommissioning of non-radiological materials does not mean the procedure is not appropriate and that associated expenses will not be incurred. fact, as Mr. LaGuardia indicated during cross-examination, the NRC did require, in two instances, that the nonradioactive structures of canceled units be completely demolished as part of the termination of the construction permit of those facilities. TR. Vol. 3, p. 139. The NRC is primarily concerned with the safety aspect associated with contaminated or radiated structures in the decommissioning arena. It is necessary to remove portions of these structures to establish adequate room for removal of contaminated materials. As also indicated, without full site restoration there will continue to be expenses for upkeep, surveillance and liability ---that the Company's ratepayers would be subject to paying. Commission finds Duke's proposal to dismantle non-contaminated facilities to be appropriate and therefore, denies the Consumer Advocate's proposal to remove the non-radiological decommissioning costs from its annual revenue requirement.

The Consumer Advocate further recommended lowering the 25% contingency factor included in each site-specific decommissioning study to a 10% factor. The Consumer Advocate argues that TLG actually bid on a fixed cost decommissioning project with a 10-15% contingency, that the largest project to date in the United States came in under estimate by almost 10%, and most utilities including Duke are studying life extensions beyond the current license lives.